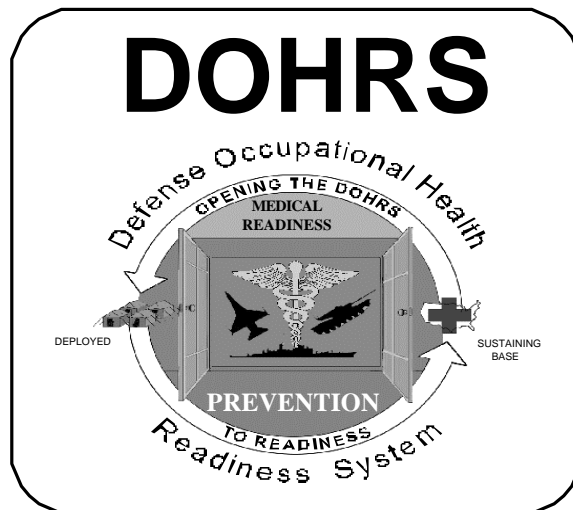
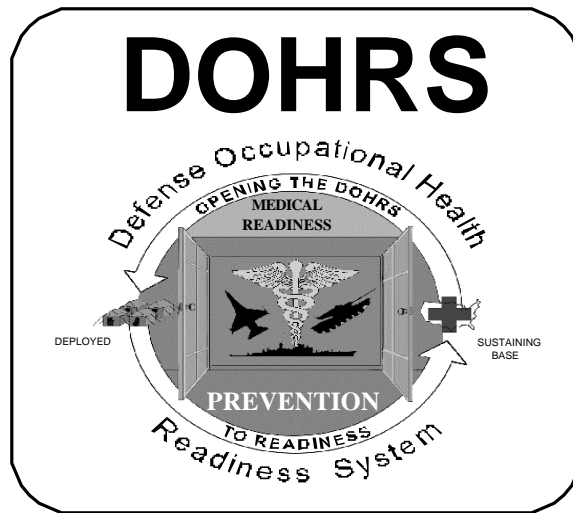

Defense Occupational Health Readiness System



Data Warehouse System Requirements Specification

Defense Occupational Health Readiness System



Data Warehouse System Requirements Specification

Contract No. DAAD05-98-A-0001

Prepared by:
Science Applications International Corporation
Integrated Program Services Operation
1309 Continental Drive
Abingdon, Maryland 21009

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1. SCOPE

This document identifies the Defense Occupational Health Readiness System (DOHRS) Data Warehouse (DW) module functional requirements. It includes warehouse level requirements for Hearing Conservation (HC) and Industrial Hygiene (IH). This document presents a detailed listing of requirements for the DOHRS DW system with associated clarification text where available (see appendices B and C).

1.1 Identification

This System Requirements Specification (SRS) document pertains to the DOHRS DW system supporting data warehousing reporting for IH and HC. Its purpose is to provide the framework for implementing the architecture in place for the Non-Stockpile Chemical Materiel Product (NSCMP) system, customizing areas specific to the DOHRS project, and designing and developing the database and reports.

1.2 Background

The DOHRS Warehouse Working Groups (DWWGs), consisting of functional representatives from the Army, Air Force, and Navy (see tables 1 and 2), was established to review, discuss, and clarify the SRS and review the voting priorities of the Department of Defense Data Warehouse Working Group (DoD DWWG). A series of functional working group meetings (see table 3) was held to review each of the functional requirements sections to provide clarification and determined the feasibility of the requirements in relation to DOHRS DW capabilities and schedule. During the functional reviews, each requirement was discussed and clarified by representative Service members in order to capture the tri-Service perspective. The review also served to clarify between Build 1 and Future Build requirements. Certain requirements were re-prioritized based on a decision from a particular Service's representative if the requirement was "mission essential" for that Service only.

Table 1. List of Industrial Hygiene Functional Working Group Representatives

IHDWWG Representative	Service/Organization
Ron Porte	AFMOA
Mike Stebbing	APG
Carla Treadwell	BUMED
Heidi Overstreet	CHPPM-EUR
Dennis Smoot	NEHC
John Seibert	LMI (DoD Consultant)
Jeff McClafin	NNMC
Alex Ornstein	PMDOHS
Gail Valenti	SAIC
Dave Walters	SAIC
Jeff Mansfield	SAIC
Brenda Wolbert	USACHPPM
Dennis Morgan	USACHPPM
Greg Opheim	WRMC
Regina Litvin	USACHPPM
C.R. Dunn	NNSY
Agapito Lambert	USAF
Ralph Castle	NSA

Notes:

AFMOA	=	Air Force Medical Operations
APG	=	Aberdeen Proving Ground
BUMED	=	Bureau of Medicine (Navy)
CHPPM-EUR	=	Center for Health Promotion and Preventive Medicine - Europe
DOHS	=	Defense Occupational Health Readiness System
DWWG	=	DOHS Warehouse Working Group
IHDWWG	=	Industrial Hygiene Functional Working Group
LMI	=	Logistics Management Inc.
NEHC	=	Navy Environmental Health Center
NNMC	=	National Naval Medical Center
NNSY	=	Norfolk Navy Shipyard (Navy)
NSA	=	National Security Agency
PM	=	Program Manager
SAIC	=	Science Applications International Corporation
USACHPPM	=	U.S. Army Center for Health Promotion and Preventive Medicine
WRMC	=	Western Regional Medical Center

Table 2. List of Hearing Conservation DWWG Representatives

HCDWWG Member	Service/Organization
MAJ Alex Ornstein	PMDOHS
LTC Theresa Schultz	Functional DOHS (Air Force)
MAJ Kathy Gates	Functional DOHS (Army)
LT Joel Bealer	Functional DOHS (Navy)
Ms. Gail Valenti	SAIC
Mr. Dave Walters	SAIC
Ms. Anne Mackin	SAIC
Dr. Tom Helfer	Army
John Page	Navy
CDR Glen Rovig	Navy
Mr. John Seibert	LMI
Mr. Ernest Oakes	Air Force
CPT Karen Agres	Air Force
Mr. Doug Ohlin	Army
SSGT Teresa Bates	Air Force

Notes:

CDR = Commander
 CPT = Captain
 DOHS = Defense Occupational Health Readiness System
 DWWG = DOHS Warehouse Working Group
 HC = Hearing Conservation
 LT = Lieutenant
 LTC = Lieutenant Colonel
 MAJ = Major
 PM = Program Manager
 SSGT = Staff Sergeant

Table 3. List of DOHRS Warehouse Working Group Meetings

Functional Meeting Date	Representation	Topics
1 to 3 September 1998	Army, AF, Navy, SAIC	HC Requirements
3 March 1999	Army, AF, Navy, SAIC	HC Requirements
7 to 8 April 1999	Army, AF, Navy, NSA, SAIC	IH Requirements
12 to 13 May 1999	Army, AF, Navy, NSA, SAIC	IH Requirements

Notes:

AF = Air Force
 HC = Hearing Conservation
 IH = Industrial Hygiene
 NSA = National Security Agency
 SAIC = Science Applications International Corporation

This document will serve as the DOHRS DW SRS. It incorporates all the comments and changes received during the DWWG meetings and identifies the requirements.

1.3 System Overview

DOHRS consists of applications to capture HC and IH test and survey results. This information is then fed to the DOHRS DW on a regular basis. The DOHRS DW serves as the long-term storage repository of operational data and is used for trend analysis and reports.

DOHRS Data Warehouse is composed of reporting modules supporting the IH and HC programs throughout DoD. Each module will be fully integrated into the DOHRS DW, resulting in an automated, tri-Service information system that facilitates efficient sharing of information between members of the user community and also between other automated systems, such as CHCS II (Comprehensive Health Care System) and other DoD and federal systems as required. This document discusses only the DOHRS DW functionality.

1.3.1 Industrial Hygiene. The DW contains IH data, which consists of personnel information including any exposure to hazards. Related information such as what controls were used to mitigate an exposure and the period of time the person was exposed to this hazard is also maintained. The work process and location as well as the Similar Exposure Group the person was assigned to is also maintained. Information about each IH office's workload and IH staff training is maintained.

1.3.2 Hearing Conservation. The DW contains HC data, which consists of personnel information including the results from audiograms. Related data such as demographic information, the reason for the audiogram, and controls that were used to mitigate the individual's noise exposure are stored here. Also included in the DW is information about the audiometers used for the audiograms, such as what workplace activities and sites are using the equipment.

1.4 Document Overview

The DOHRS DW SRS contains a complete listing of all functional requirements for the DOHRS DW application software. This SRS covers those technical requirements that are primarily functional requirements, which address reporting, communication, access, and system level requirements.

1.4.1 Reporting. The DOHRS DW SRS contains requirements for reports that apply to either HC or IH. These are identified in an attachment to this SRS, entitled "Reporting." All itemized reports will be provided as part of the DW application. Any new reports identified that are not part of this SRS will be made part of a future build of the DW.

1.4.2 Communication. All reports and queries will be available via a standard Web browser. Capability for both Netscape (4.5 or greater) and Internet Explorer (4.01 or greater) is planned. There are some differences between how various hypertext markup language (HTML) components are handled by each browser. The DOHRS DW will be tailored for use with Internet Explorer but alternately could be run in Netscape.

1.4.3 Data. Data stored in the DW is uploaded from each of the workstation applications (HC or IH). A process is already in place to upload the data from the HC application to the DW database. A process is still needed to move the data from the Data Gateway server in the IH application to the DW database.

1.4.4 Security. The DOHRS DW is required to be Military Health System C2-compliant. Access level security will be handled by the DOHRSNet system. Only those people with DOHRSNet accounts will be able to access the DW.

An additional layer of security is being provided in the DW. This layer is based on role-based security. The DW keeps track of where each person is located, what service branch, and the unit identification code (UIC) they are assigned. The DW uses these values and assigns specific locations, services, and UICs to each user of the system. A user is allowed to see data based on his or her role. Most users will have access only to data from the Service and location where they are assigned. However, some roles will allow access to the entire Service or across Services. The DOHRS Program Management Office will facilitate the assignment of database roles.

2. REFERENCED DOCUMENTS

- a. DOHRS SRS
- b. DOHRS Meeting Minutes from both HC and IH working groups
- c. DOHRS Integration Decision Paper, 11 April 1997.

APPENDIX A
ACRONYMS/ABBREVIATIONS

APPENDIX A

ACRONYMS/ABBREVIATIONS

AF	Air Force
AFMOA	Air Force Medical Operations Agency
APG	Aberdeen Proving Ground
BUMED	Bureau of Medicine (Navy)
CDR	Commander
CHCS II	Comprehensive Health Care System
CHPPM-EUR	Center for Health Promotion and Preventive Medicine - Europe
CPT	Captain
DoD	Department of Defense
DoD DWWG	Department of Defense Data Warehouse Working Group
DOHRS	Defense Occupational Health Readiness System
DW	Data Warehouse
DWWG	DOHRS Warehouse Working Group
HC	Hearing Conservation
HTML	hypertext markup language
IH	Industrial Hygiene
LMI	Logistics Management Inc.
LT	Lieutenant
LTC	Lieutenant Colonel
MAJ	Major

NEHC	Navy Environmental Health Center
NNMC	National Naval Medical Center
NNSY	Norfolk Navy Shipyard
NSA	National Security Agency
NSCMP	Non-Stockpile Chemical Materiel Product
PMDOHS	Program Manager for the Defense Occupational Health Readiness System
SAIC	Science Applications International Corporation
SRS	System Requirements Specification
SSGT	Staff Sergeant
UIC	unit identification code
USACHPPM	U.S. Army Center for Health Promotion and Preventive Medicine
WRMC	Western Regional Medical Center

DOHRS

DOHRS

DW Phase III

Module_Name Data Warehouse

Category Data **Level** 3.01.01 **Submitter** HC Functional Group **Type** Functional **Submitted** 9/3/1998

Title All legacy data must be in the corporate database.

DOHRS SRS Req #

Description All existing HEARS data from the Tri-Services must be made available in the corporate database. Gap in data between HEARS and DOHRS HC must not affect the availability of reports

Discussion

Category Data **Level** 3.01.02 **Submitter** HC Functional Group **Type** Functional **Submitted** 9/3/1998

Title EAR3-A data must reside in the corporate database.

DOHRS SRS Req #

Description All data contained in the DOHRS HC database must be uploaded and stored on the corporate database.

Discussion

Category Data **Level** 3.01.03 **Submitter** HC Functional Group **Type** Functional **Submitted** 9/3/1998

Title Data must be in the corporate database within 3 days.

DOHRS SRS Req #

Description All data uploaded to the corporate database must be available to service-wide users within 3 working days.

Discussion HC Load System processes files within the day of the upload. The aggregate tables on the data warehouse will be updated periodically to support summary reports.

Category Data **Level** 3.01.04 **Submitter** HC Functional Group **Type** Functional **Submitted** 9/3/1998

Title All hearing test history must be available.

DOHRS SRS Req #

Description All previous 2215 and 2216 testing must be accessible by the installation the person is currently assigned, regardless of where testing occurred.

Discussion

Category	Data	Level	3.01.05	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Historical Standardized calculations							DOHRS SRS Req #	
Description	The calculations used to determine key characteristics of the data must be the one used at the time of the test.								
Discussion	STS with and without age correction and DoD standards are maintained.								
Category	Data	Level	3.01.06	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Noise Exposure							DOHRS SRS Req #	
Description	The corporate database must track whether or not a person is in a noise exposed environment.								
Discussion									
Category	Data	Level	3.02.01	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Data Call Procedures							DOHRS SRS Req #	
Description	Procedure: Data Uploads will be made daily to corporate database via the internet, backup procedure will be by certified mail Corporate database will return an acknowledgement of received records, including a record count. Corporate database will return a status report covering how many records were processed, accepted and rejected. The rejected records will be included in the report with a description of the errors. This report shall be e-mailed back to the submitter within 3 working days. This should not prevent access to data already in the corporate database								
Discussion	Managed within the HC application and the HC load process.								
Category	Data	Level	3.02.02	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Legacy data must be accepted by corporate database							DOHRS SRS Req #	
Description	The corporate database must accept both HEARS and DOHRS HC data until DOHRS HC is completely fielded.								
Discussion									
Category	Reporting	Level	1.01.01	Submitter	IH Functional Group	Type	Contractual	Submitted	9/3/1998
Title	Ad hoc Query Tools must be available.							DOHRS SRS Req # 21.1	
Description	An ad hoc query tool must be made available to service-wide and region level users.								
Discussion	Current ad hoc capability provided is that users can select different report critieria to base each report on.								

Category	Reporting	Level	1.01.02	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Charting								DOHRS SRS Req #
Description	Reporting Tool should generate charts with "drill-down" capability. Charts should be generated with a ± 3 standard deviation								
Discussion	A Chart has been defined for the Hearing Threshold statistics report. The OSHA Reportable Hearing Loss report shall include drill down capability to supporting information.								

Category	Reporting	Level	1.02.01	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Ability to run batch reports.								DOHRS SRS Req #
Description	Groups of canned reports that run using identical criteria. Available to all levels of users.								
Discussion	This will be considered in a future build								

Category	Reporting	Level	1.03.01	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Report Grouping Levels								DOHRS SRS Req #
Description	Reports will be displayed by military only, civilian only, and combined military and civilian								
Discussion	Each report has its own grouping requirements.								

Category	Reporting	Level	1.03.02	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Report Packs Criteria Selection								DOHRS SRS Req #
Description	Reports should prompt for specific criteria to run against such as FY, CY, specific date range, installation, rank, SDOC, branch, location, etc.								
Discussion	The user shall be able to enter a month and year data range to support date requirements. Location is reported, but not supported as a criteria.								

Category	Reporting	Level	1.04.01	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Reports should support wildcards.								DOHRS SRS Req #
Description	Support use of either ANSI SQL wildcards (% ,_) or Microsoft wildcards (*,?) in prompts for reports.								
Discussion	Criteria screens support selection of one, more than one or all criteria, the exceptions are for SSN and UIC. Due to the large number of options an individual SSN or UIC must be entered.								

Category	Reporting	Level	1.04.02	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Benchmark against standard or aggregate values							DOHRS SRS Req #	
Description	Reports should allow benchmarking of installation numbers vs. region, MACOM, and service-wide numbers								
Discussion	Not specified in individual report specifications; Will be considered in a future build as necessary.								
Category	Reporting	Level	1.05.01	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Positive Significant Threshold Shift (STS)							DOHRS SRS Req #	
Description									
Discussion	Build 1								
Category	Reporting	Level	1.05.02	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Military Hearing Profile Report							DOHRS SRS Req #	
Description									
Discussion	Build 1								
Category	Reporting	Level	1.05.03	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Potential Hearing Loss Compensation Liability Rep.							DOHRS SRS Req #	
Description									
Discussion	Build 2								
Category	Reporting	Level	1.05.04	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	OSHA Reportable Hearing Loss							DOHRS SRS Req #	
Description	25 dB decrease from Original Baseline								
Discussion	Build 1								
Category	Reporting	Level	1.05.05	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Hearing Tests by DoD Component							DOHRS SRS Req #	
Description									
Discussion	Build 1								

Category	Reporting	Level	1.05.06	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Military Hearing Status Report							DOHRS SRS Req #	
Description									
Discussion	Build 2								
Category	Reporting	Level	1.05.07	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Multiple Re-Established Reference Report							DOHRS SRS Req #	
Description	Individuals with multiple re-established references (2215); prompt for number of significant occurrences.								
Discussion	Combined with Individuals with Multiple 2215s; Build 2								
Category	Reporting	Level	1.05.08	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Distribution of Hearing Protection Used							DOHRS SRS Req #	
Description									
Discussion	Build 2								
Category	Reporting	Level	1.05.09	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Distribution of Hearing Protection Issued							DOHRS SRS Req #	
Description									
Discussion	Build 2								
Category	Reporting	Level	1.05.10	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Earplug sizes and Distributions							DOHRS SRS Req #	
Description									
Discussion	Build 3								
Category	Reporting	Level	1.05.11	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Hearing Threshold Level Statistics (chart)							DOHRS SRS Req #	
Description									
Discussion	Build 3								

Category	Reporting	Level	1.05.12	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Negative STS report							DOHRS SRS Req #	
Description									
Discussion	Build 1								
Category	Reporting	Level	1.05.13	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Same Thresholds for all frequencies							DOHRS SRS Req #	
Description									
Discussion	Future Build								
Category	Reporting	Level	1.05.14	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	No Entries at 0dB in either ear							DOHRS SRS Req #	
Description									
Discussion	Future Build								
Category	Reporting	Level	1.05.15	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	High Threshold Report							DOHRS SRS Req #	
Description	Hearing Tests with Thresholds Greater than 20dB at 500Hz								
Discussion	Future Build								
Category	Reporting	Level	1.05.16	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Individuals with Multiple 2215s							DOHRS SRS Req #	
Description									
Discussion	Combined with Multiple Re-established References; Build 2								
Category	Reporting	Level	1.05.17	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Report Summary with only Totals or full Detail							DOHRS SRS Req #	
Description									
Discussion	Build 2								

Category	Reporting	Level	1.05.18	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Hearing Conservation Program Disposition Overview							DOHRS SRS Req #	
Description									
Discussion	Future Build								
Category	Reporting	Level	1.05.19	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Hearing Thresholds by Individual							DOHRS SRS Req #	
Description									
Discussion	Build 1								
Category	Reporting	Level	1.05.20	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Testing Detail Report							DOHRS SRS Req #	
Description	Individuals tested by Hearing Test Date and Audiometer Serial No.								
Discussion	Future Build								
Category	Reporting	Level	1.05.21	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Distribution of Personnel by SDOC							DOHRS SRS Req #	
Description									
Discussion	Build 3								
Category	Reporting	Level	1.05.22	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Personnel with a 2215 and 2216 within 13 months							DOHRS SRS Req #	
Description									
Discussion	Future Build								
Category	Reporting	Level	1.05.23	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Personnel with a 2216 and no 2215							DOHRS SRS Req #	
Description	Service-Wide level								
Discussion	Future Build								

Category	Reporting	Level	1.05.24	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Threshold Report							DOHRS SRS Req #	
Description	Personnel with sum of thresholds at 3K, 4K, and 6K Hz that exceeds 270dB in both ears (Navy report)								
Discussion	This was removed as a requirement at the March 3, 1999 HC Functional Group Meeting								
Category	Reporting	Level	1.05.26	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	HC Program Compliance Report							DOHRS SRS Req #	
Description									
Discussion	Tri-Service Definition of Compliance must be determined. Compliance definition finalized prior to 3/3/1999 meeting; denominator data has been provided.								
	Build 1								
Category	Reporting	Level	1.05.27	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Noise Exposure							DOHRS SRS Req #	
Description	Who needs to be enrolled in the HCP								
Discussion	Will be considered in a future build as necessary.								
	Need further discussion on how to generate this data.								
Category	Reporting	Level	1.05.28	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Training							DOHRS SRS Req #	
Description	Individuals needing training, Individuals that have received training, for a specific installation								
Discussion	Will be considered in a future build as necessary.								
Category	Reporting	Level	1.05.29	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Cost Comparison Reports							DOHRS SRS Req #	
Description	Estimation of Cost Savings and Program Needs Information								
Discussion	Will be considered in a future build as necessary.								
	Further discussion is required on how to generate this data								

Category	Reporting	Level	1.05.30	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Specialized Navy Reports							DOHRS SRS Req #	
Description	RAC, CEI, and APN Reports								
Discussion	These reports were removed from the list at the 3/3/1999 HC Functional meeting.								
Category	Reporting	Level	1.05.31	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Chemical vs. Hearing Status Reports							DOHRS SRS Req #	
Description									
Discussion	Will be considered in a future build as necessary.								
Category	Reporting	Level	1.05.33	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Hearing Tests by Technician							DOHRS SRS Req #	
Description	Hearing tests administered by Audiometric Technician								
Discussion	Will be considered in a future build as necessary.								
Category	Reporting	Level	1.05.34	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Records Received Report							DOHRS SRS Req #	
Description	Number of Hearing Test Records Received by Installation by month								
Discussion	Build 2								
Category	Security	Level	2.01.01	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Security							DOHRS SRS Req #	
Description	Three levels of security should be available. Installation level views only canned reports for the specific installation they are located at. Regional level is identical to installation level for a specific group of installations. Access to an ad hoc query tool is required. Service-wide users have access to all reports, and the ad hoc query tool for all data for a specific service. DoD users have access to data service wide via both the canned reports and the ad hoc tool								
Discussion	Further review by functionals removed ad hoc report requirement.								
Module_Name	Data Gateway								

Category	Reporting	Level	1.05.32	Submitter	HC Functional Group	Type	Functional	Submitted	9/3/1998
Title	Unable To Test Report							DOHRS SRS Req #	
Description	Identify individuals that cannot be tested due to limitations of the audiometer								
Discussion	Will be considered in a future build as necessary.								
Module_Name	Data Warehouse								
Category	Data	Level	4.01.01	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Rcvs data from LOC, MSR, IH exposure from DOHRS.							DOHRS SRS Req # 19.1	
Description	2 functions: 1. Receive IH exposure surveillance data into a single exposure database. 2. Receive medical exam results from DOHRS OM into a single medical surveillance outcome database. Receiving medical exam results no longer fits into the current implementation plan for the DOHRS data warehouse. OM surveillance data will be available through the clinical data repository (CDR) or Defense Medical Surveillance System (DMSS) as part of the Corporate Executive Information System (CEIS).								
Discussion	Reports used to meet this requirement: Individual Exposure History Report, Individuals Above the Action Level Report, Samples Above the Action Level Report, Medical Surveillance Recommended Report, STS Incidence Report								
Category	Data	Level	4.01.03	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Maintains repository on real time basis for local queries							DOHRS SRS Req # 19.3	
Description	"Real time basis" duplicates the time requirement of 19.11. "may be queried at local level" duplicates reporting requirement of								
Discussion	Reports used to meet this requirement: Individual Exposure History Report, STS Incidence Report								
Category	Data	Level	4.01.04	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must have choice of local and regional data. Data can be exported to EXCEL, SAS, and SPSS.							DOHRS SRS Req # 19.4	
Description	Provide query builder for installation and MACOM users to select data fields to download into a format compatible with Excel or Access. Installation users would only be provided data for their INSTALLATION; MACOM users would only be provided data for installations in their MACOM, and INSTALLATION would be identified for each data record so MACOM users could subsequently sort their MACOM data by INSTALLATION. Provide SAS & SPSS query capability to data warehouse managers								
Discussion	All reports provide capability to select by installation or groups of installations, depending on the security level granted. Downloads to Excel will be developed for specific reports as required. Exports to SAS and SPSS will be given to users local to the Data Warehouse only. Other exports can be created and delivered to users by special request.								

Category	Data	Level	4.01.05	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Shall use workload data to calculate staffing requirements across multiple locations.							DOHRS SRS Req #	19.5
Description	Move to section 20, Performance Measures. System shall generate a standard report for each IH Program Office showing total workload for that office, and the workload broken down by each installation served by the IH Office: see Army Installation Status Report.								

Discussion Reports used to meet this requirement: Controls Recommended Report

Category	Data	Level	4.01.06	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must consolidate individual installation information into DoD wide.							DOHRS SRS Req #	19.6
Description	Incorporated into 19.8								
Discussion									

Category	Data	Level	4.01.07	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must integrate installation exposure data to provide complete history.							DOHRS SRS Req #	19.7
Description	The data warehouse will produce a longitudinal exposure record for each exposed person which is a composite of exposure data generated for that person at all installations and military deployments, regardless of location or military Component of the hygienist generating the exposure data.								
Discussion	Reports used to meet this requirement: Individual Exposure History Report, Risk Assessment Code Report, Medical Surveillance Recommended Report, STS Incidence Report								

Category	Data	Level	4.01.08	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must identify corporate wide sampling data for specific substances.							DOHRS SRS Req #	19.8
Description	Data warehouse will allow users at all levels from installation to DoD request standard reports. Users will be able to compare subordinate organizations to each other for comparison, but not to compare themselves to equivalent level organizations (HQ USAF user can get break out by AF MAJCOM & AF installation, and get total of all of DoD, but cannot compare AF to Navy). 1. "Sample Summary Report". User selects a hazard or hazard group, and organize. level (i.e. installation, MACOM, DoD component, all DoD). The system reports: exposure levels, # of exposed workers, processes associated with hazards, controls. 2. "Process Hazards Report". User selects an operation and organize level. The system reports: hazards, exposure levels, # of								
Discussion	Reports used to meet this requirement: Process Hazard Report, Individuals Above the Action Level Report, Samples Above the Action Level Report, Risk Assessment Code Report, SEG Sampling Performed Report, Medical Surveillance Recommended Report								

Category	Data	Level	4.01.11	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must perform automated data population to the corporate database.							DOHRS SRS Req #	19.11
Description	Installation level systems automatically send data to data warehouse as soon as data receives quality control review, without the need for the installation to package or select data to be sent (roll-up frequency somewhere between 1 day and 1 month).								
Discussion	An interface will be developed between the IH Data Gateway and the DOHRS Data Warehouse to facilitate the transfer of data from the Gateway of the Data Warehouse.								
Category	Network	Level	4.01.12	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must support connectivity to other base IH information							DOHRS SRS Req #	19.12
Description	Duplicates 19.8								
Discussion	Reports used to meet this requirement: Process Hazard Report, Individual Exposure History Report, Individuals Above the Action Level Report, Samples Above the Action Level Report								
Category	Reporting	Level	4.01.09	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must capture required actions to reduce risk from OH and incomplete IH tasks.							DOHRS SRS Req #	19.9
Description	2 reports described here: 1. "Controls to be Implemented". Listing of recommended controls that have not been implemented, sorted by installation, HQ, DoD Component. 2. "Incomplete IH Tasks". Listing of tasks in the IH work schedule that remain to be accomplished, sorted by installation, HQ, DoD Component.								
Discussion	Reports used to meet this requirement: Controls Recommended Report								
Category	Reporting	Level	4.01.10	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	The system shall generate a consolidated DoD report of occupational illnesses & related exposures							DOHRS SRS Req #	19.10
Description	Link the medical outcome data (from Clinical Data Repository or Defense Med Surveillance Sys) with the DOHRS data warehouse exposure data to provide a report for each suspected occupational illness: ICD-9 code & title, workplace name, process, hazard, exposure level, exposure standards, controls used. Until a link to medical outcome data is available, allow for installation level, DoD Component, and DoD users to enter the name of a person, and receive a report of the complete exposure history: person, workplace names, processes, hazards, exposure levels, exposure standards, controls used.								
Discussion	Reports used to meet this requirement: Individual Exposure History Report, Individuals Above the Action Level Report, Samples Above the Action Level Report, Risk Assessment Code Report, Medical Surveillance Recommended Report, STS Incidence Report								

Category	Reporting	Level	4.02.01	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Performance Measures for OH							DOHRS SRS Req # 20.1	
Description	The system shall report the OH status of each workplace: hazards present, relative risk assessment, exposure levels, exposure limits, controls in use, adequacy of controls, recommendations, required IH tasks.								
Discussion	Reports used to meet this requirement: Process Hazard Report, Individuals Above the Action Level Report, Samples Above the Action Level Report, Risk Assessment Code Report, Medical Surveillance Recommended Report, STS Incidence Report								
Category	Reporting	Level	4.03.01	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Ad-hoc reporting capability for reports							DOHRS SRS Req # 21.1	
Description	The system shall generate standard and ad hoc reports for installations, headquarters, Services, DoD, and non-DoD agencies: sampling data for specific substances, groups of substances (e.g., glycol ethers), and operations (e.g., welding operations) (reference HHIM, IHIMS & CCS for substance grouping and operations lists).								
Discussion	All reports provide the ability to vary criteria when selecting which report to run. Future capability may be added via a COTS								
Category	Reporting	Level	4.03.02	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must be able to generate corporate level STS reports.							DOHRS SRS Req # 21.2	
Description	The system shall generate reports at the corporate level for Significant Threshold Shifts (STS) by worksite, job code, and specific location (reference reports in OHMIS, Command Core, and IHIMS).								
Discussion	Reports used to meet this requirement: STS Incidence Report by UIC								
Category	Reporting	Level	4.03.03	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must utilize standardized forms.							DOHRS SRS Req # 21.3	
Description	The system shall to utilize standardized forms (pre-developed and "shipped" with the system) and the ability to locally develop forms (formats) to which the data in the system can query and generate a custom report.								
Discussion	Reports used to meet this requirement: Process Hazard Report. All reports follow a standard format which allows different criteria to be selected and displayed. Custom formats shall be considered in a future build.								
Category	Reporting	Level	4.03.04	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must be able to receive and transmit documents.							DOHRS SRS Req # 21.4	
Description	The system shall receive, transmit and edit large documents (e.g., proposed regulations, guides, etc.) and consolidate comments from many reviewers.								
Discussion	This requirement has not been designated as mission essential and will be considered in a future build.								

Category	Reporting	Level	4.03.05	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must have local development option to develop reports.							DOHRS SRS Req #	21.5
Description	The system shall enable localized development of "final" DOHRS system through addition of locally developed data fields which can be tied to the main data base and linked for output reports.								
Discussion	This requirement has not been designated as mission essential and may be considered in a future build.								
Category	Reporting	Level	4.03.06	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must have e-mail capabilities.							DOHRS SRS Req #	21.6
Description	The system shall allow the sending of all reports via email and automatically track data read and by whom.								
Discussion	The IH Data Warehouse Functional Working Group has recommended that this be removed by the Army as mission essential. The browser supports emailing of pages natively.								
Category	Reporting	Level	4.03.07	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must have capabilities to generate letter/reports.							DOHRS SRS Req #	21.7
Description	The system shall generate letters/reports from database with electronic transfer capability (mailmerge).								
Discussion	The IH Data Warehouse Functional Working Group has recommended that this be removed by the Army as mission essential.								
Category	Reporting	Level	4.03.08	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must have built-in internet option.							DOHRS SRS Req #	21.8
Description	The system shall maintain built-in current e-mail/web sites directory database for all DoD OH resources.								
Discussion	This currently provided by the DOHRS web site. Also the following reports satisfies this requirement: IH Staff Training Report								
Category	Reporting	Level	4.03.09	Submitter	IH Functional Group	Type	Functional	Submitted	1/13/1998
Title	Must have option to generate report (can be accessed by MSFT).							DOHRS SRS Req #	21.9
Description	The system shall allow access to data through Microsoft products (Access, Excel, Word) to facilitate custom report generation.								
Discussion	Some reports support drilldown capability, the results of which may be exported to Excel. These are determined by the individual report specifications.								

Category Reporting **Level** 4.03.10 **Submitter** IH Functional Group **Type** Functional **Submitted** 1/13/1998

Title Must be able to store/save user defined reports

DOHRS SRS Req # 21.10

Description The system shall maintain user-definable, ad hoc query capability that does not require extensive IM/IT training for use.

Discussion The ability to develop and store true custom reports will be considered in a future build, possibly through a COTS product.

Category Reporting **Level** 4.03.11 **Submitter** IH Functional Group **Type** Functional **Submitted** 1/13/1998

Title Must have hierarchical programming functions.

DOHRS SRS Req # 21.11

Description The system shall provide hierarchical programming and query functions, basic at installation level and advanced for areas in which there will be population data management.

Discussion Reports are available by DoD component, MACOM/MAJCOM and installation levels. Regions are also supported via the grouping of installations. Varying capability based on access level will be considered in a future build.

Category Security **Level** 4.01.02 **Submitter** IH Functional Group **Type** Functional **Submitted** 1/13/1998

Title Allow queries from all agencies, universities, and research organizations

DOHRS SRS Req # 19.2

Description Allow queries throughout and outside of DoD. However, do not provide personnel names or SSNs unless the person is cleared to receive privacy act restricted data. For non-DoD research queries, provide reports without personnel names and replace the SSN with a unique ID number kept in a DOHRS data warehouse translation table.

Discussion To be done as a special request submitted to the DOHRS PMO.